

## DECLARATION

I, the undersigned: F. Barendregt

sworn Netherlands Patent Attorney of:

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hereby declare:

- that I am conversant in the Dutch and English language;
- that the attached 2 pages contain a true and faithful translation - made at the best of my ability - of

Netherlands Patent Application No. 1019816

filed 22 January 2002

relating to:

"Cheese milk protein fibre, having a new property,  
baked cheese meat does not melt, cheese does"

done at Rijswijk, October 21, 2004



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Industrial Property Office  
Patentweg 2  
Rijswijk  
Application industrial protection

Patent application, cheese meat innovation

The patent application concerns the protection of the following invention. The producing of a cheese milk protein fibre, having a new property, baked cheese meat does not melt, cheese does.

Cheese fish, cheese meat, cheese chicken or as much as there are products to which the invention applies.

The products designed consist of a fibre which has been compressed, with a light pressure, upon which a slab resembling meat is formed, or another model, the taste: it has no cheese taste and is very good sliceable, resembling meat or fish. It may be eaten like meat having a firm bite, or fish having a somewhat softer bite.

The recipe.

600 gram Gouda cheese curd. (Percentage ?.)

1200 cc, water 60 °C.

4 gram polyphosphate

30 gram alginate

Reaction substance, precipitation, dewatering, by;

40 gram 4 %'s calcium acetate or 30 gram 3%'s calcium chloride

600 cc of the solution is added or varying 500 cc per recipe etc.

Rinsing

Pressing

The procedure; the cheese, curd or grated cheese.

The type of cheese is not important

Gouda cheese has been used (without dyestuff)

Very suitable are cheese types Gouda cheese, Emmentaler, Edam cheese and other types of cheese.

The invention starts from Gouda cheese curd.

The principle is that the acid taste is removed from the cheese curd, lactic acid, the pH 5,0 has to be raised to pH 6,8 which is achieved by rinsing with lukewarm water.

In a high speed mixer addition takes place in sequence.

Hot water, with agitation the cheese curd is added.

The calcium present in the milk formed to curd is eliminated by polyphosphate, on 600 g drained washed cheese and 1200 cc water having a temperature such that the cheese curd will have a temperature of 50 °C (approximately). The polyphosphate is added.

The cheese milk protein is digested by the addition of the polyphosphate or an equivalent substance. A slurry is formed. To this slurry a calcium reactive alginate is added in a ratio with respect to the cheese curd of 5%, 600 gram cheese and 30 gram alginate. Recipe.

Above mixture is mixed intensively in the high-speed mixer, the temperature of the slurry is between 45 and 50 °C, approximately.

In the mixer the slurry is mixed with a calcium chloride or calcium acetate, a calcium type which is suitable to cause a dewatering reaction, in a ratio.

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the recipe is 30 gram calcium chloride or 40 gram calcium acetate per litre water of 50 °C, approximately.

By addition, with stirring, of the amount of calcium a fibre is formed which, as the added calcium may be, forms a fibre having a more firm or a softer fibre structure.

On above recipe of the calcium 600 cc is added and for a softer fibre (fish) 500 cc is added.

The fibres are rinsed with warm water having a temperature of approximately 45 °C.

The soft fibre strongly resembles a fish structure.

The more firm fibre resembles strongly meat or chicken.

By compressing is a desired form a very good adhesion is achieved.

The essence of the invention is that by addition of a phosphate or a similarly acting substance to the milk cheese protein water, the milk cheese protein is digested. It melts.

To the digested milk cheese protein an alginate is added which is processed to homogenous slurry, to which a reactive calcium is added with stirring, and a fibre is formed which can be consolidated under pressure to a product resembling meat or fish.

A very good storage life is obtained by vacuuming the cheese meat product and pasteurising it 1,5 h at 85 °C. The lactic acid bacteria, streptococcus lactus bacteria, have to be rendered inactive.

Before packaging the product is aromatised and salted.

Claim:

The preparation of cheese milk protein fibre, having a new property, baked cheese meat does not melt, cheese does.

Cheese fish, cheese meat, cheese chicken, or so much more as there are products to which the invention applies.

The designed products are constituted by a fibre which has been compressed, with a light pressure, after which a slab resembling meat is formed, or another model, the taste does not resemble cheese and it is good sliceable, resembles meat or fish; it is eaten as meat having a firm bite or fish having a somewhat softer bite.

1. The invention of NL patent 1008364 of 12-11-99 gives an analogous description of the method be it that the patent 1008364 concerns vegetable material whereas the

2. Patent application of 22 January 2002 concerns animal, i.e. milk protein, which has been formed to curd by rennet enzyme, or sliced, grated cheese.